
Caryodaphnopsis fieldii (Lauraceae), a New Species from the Coastal Cordillera of Venezuela

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ABSTRACT. A new species of *Caryodaphnopsis* Airy Shaw from Henri Pittier National Park, in the Coastal Cordillera of Aragua State, Venezuela, is described and illustrated, and its morphological relationships with allied species are discussed. *Caryodaphnopsis fieldii* Aymard & G. A. Romero resembles *C. fosteri* van der Werff, but it is distinguished by leaves with densely puberulent petioles and a rounded apex, pedicels 2–3 mm long, inner tepals 3–4.5 mm long and densely sericeous inside, stout filaments ca. 2 mm long, inner stamens with two globose glands attached at the base, and the pubescent ovary. Geographical information about the Coastal Cordillera region and a key to the Neotropical species of *Caryodaphnopsis* are presented. This species represents the first report of this genus for Venezuela.

RESUMEN. Una nueva especie de *Caryodaphnopsis* Airy Shaw del Parque Nacional Henri Pittier, en la Cordillera de la Costa, estado Aragua, Venezuela, es descrita e ilustrada, y sus relaciones morfológicas con las especies afines son discutidas. *Caryodaphnopsis fieldii* Aymard & G. A. Romero es similar a *C. fosteri* van der Werff, sin embargo, se diferencia de esta especie por sus pecíolos densamente puberulentos, el ápice redondeado; los pedicelos 2–3 mm de largo; los tépalos internos 3–4.5 mm de largo, densamente seríceos internamente, los filamentos gruesos, ca. 2 mm de largo, los estambres internos con dos glándulas globosas situadas en la base del filamento, y el ovario pubescente. Se presenta información geográfica acerca de la Cordillera de la Costa y una clave de las especies Neotropicales de *Caryodaphnopsis*. Esta nueva especie representa el primer registro del género para Venezuela.

Key words: *Caryodaphnopsis*, Coastal Cordillera, IUCN Red List, Lauraceae, Venezuela.

Caryodaphnopsis Airy Shaw is a tropical amphipacific genus of Lauraceae (van der Werff & Richter,

1985) that shows a remarkable disjunction between Southeast Asia (southern China, Vietnam, Laos, Cambodia, the Philippines, and Indonesia) and tropical America (Costa Rica, Panama, Colombia, Ecuador, Peru, and Brazil, and reported herein for Venezuela). *Caryodaphnopsis* is characterized among genera of Lauraceae by its opposite leaves and six strongly unequal tepals, the outer three being much smaller than the inner three (van der Werff & Richter, 1985; van der Werff, 1991a; van der Werff & Dao, 1999). In addition, *Caryodaphnopsis* has an interesting wood anatomical feature: the presence of pyramidal calcium oxalate crystals in the ray parenchyma cells (Richter, 1981; van der Werff & Richter, 1985), which is present in the Old World species of the genus, but not found in the Neotropical species (F. Lorea, pers. comm., 2008). Most species have 4-locellate anthers (vs. 2-locellate in other *Caryodaphnopsis* [vs. other Lauraceae]), nine stamens (vs. six), and tripliveined leaves (vs. penniveined).

THE COASTAL CORDILLERA

The Coastal Cordillera (Cordillera de la Costa) is the third largest mountain range in Venezuela, extending approximately 800 km from its western extreme in the Turbio-Yaracuy depression, where it separates from the Venezuelan Andes, to its eastern end at the tip of the Peninsula de Paria in the state of Sucre. Because of their proximity, the Coastal Cordillera and the Venezuelan Andes have sometimes been considered a continuous mountain chain. However, these two cordilleras do not share a common geologic history; the Coastal Cordillera is ca. 65 million years old, whereas the northern Andes complex is ca. 20 million years old (González de Juana et al., 1980; F. Urbani, pers. comm., 2006). The northern limit of the Coastal Cordillera is the Caribbean coastline, and to the south we find vast plains known as Los Llanos. The summits and

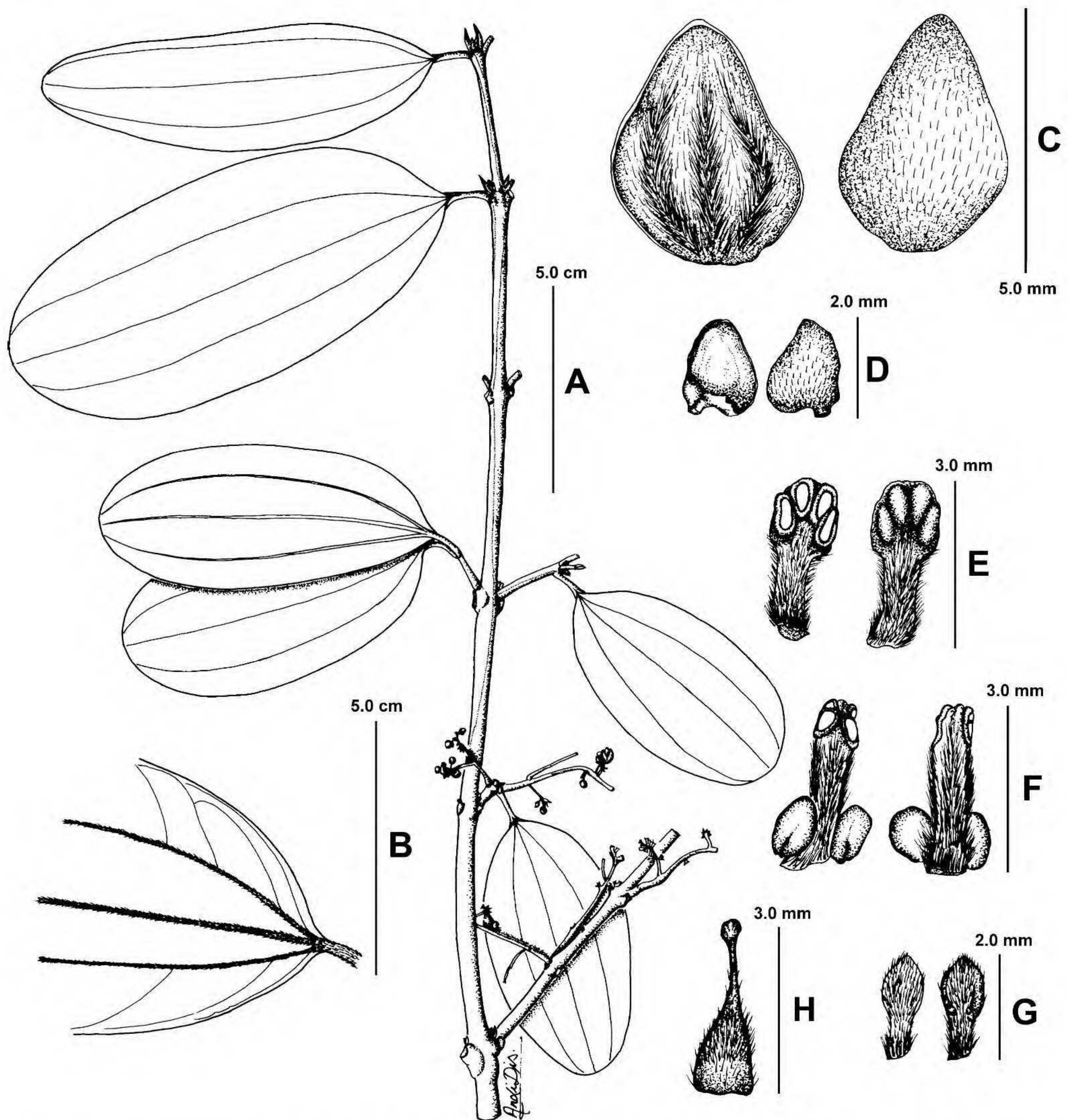


Figure 1. *Caryodaphnopsis fieldii* Aymard & G. A. Romero. —A. Branch with leaves and inflorescences. —B. Basal portion of a leaf, showing the sparse pilosity on the abaxial side, more dense along the main and secondary veins, and the dense, short pubescence on the petiole. —C. Inner tepals. —D. Outer tepals. —E. Outer stamens. —F. Inner stamens. —G. Staminiidia. —H. Ovary. Drawn from the isotype A. Field 442 (NY).

uppermost slopes of the Coastal Cordillera are mostly covered by humid cloud forest, which extend between 600 and 2000 m. Deciduous and humid low forest are also found in this region, scrub and low forests are present in the arid coastal region, and savannas and herbaceous formations occur on lower slopes, mainly in the interior valleys and plains. Steyermark (1982) studied the Coastal Cordillera flora and concluded that, in addition to endemic taxa, the vegetation of this region was a blend of Central American, Caribbean, Andean, and Guayanan-Amazonian elements. According to Huber et al. (1998), the region holds between

3000 and 3500 species of vascular plants, of which ca. 278 were noted as endemic.

Caryodaphnopsis fieldii Aymard & G. A. Romero, sp. nov. TYPE: Venezuela. Aragua: Distrito Girardot, Parque Nacional Henri Pittier, cloud forest, 1180 m, July 1984, A. Field 442 (holotype, MY; isotypes, MERF, NY). Figure 1.

Species *Caryodaphnopsidi fosteri* van der Werff accedens, sed ab ea petiolis dense puberulis, foliis apice rotundatis, pedicellis 2–3 mm longis, tepalis interioribus 3–4.5 mm

- 5a. Flowers with 6 fertile stamens; leaves coriaceous, densely brown tomentose abaxially; Ecuador, Peru *C. tomentosa* van der Werff
- 5b. Flowers with 9 fertile stamens; leaves chartaceous to subcoriaceous, sparse to densely shortly pilose abaxially.
- 6a. Leaf apex acute or acuminate to cuspidate; inner tepals 7–10 mm long; ovary ca. 1.9 mm long with sparse sericeous pubescence; Costa Rica, Panama *C. burgeri* N. Zamora & Poveda
- 6b. Leaf apex acute or rounded; inner tepals 3–6 mm long; ovary ca. 1 mm long, glabrous or pubescent.
- 7a. Petioles slightly pilose; pedicels ca. 5 mm long; inner tepals 5–6 mm long, sparsely pilose inside; filaments slender, 3–4 mm long; the inner stamens with 2 globose glands attached ca. 1 mm above the base; ovary glabrous; Colombia, Ecuador, Peru, Bolivia . . . *C. fosteri* van der Werff
- 7b. Petioles densely short pubescent; pedicels 2–3 mm long; inner tepals 3–4.5 mm long, densely sericeous inside; filaments stout, ca. 2 mm long; the inner stamens with 2 globose glands attached at the base; ovary pubescent; Coastal Cordillera, Venezuela. *C. fieldii* Aymard & G. A. Romero

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